

CLAIMS

1. A process of producing a rubber composition containing a modified carbon black for rubber reinforcement comprising:  
mixing (a) 100 parts by weight, in terms of a solid content, of a diene rubber latex and (b) 10 to 250 parts by weight, in terms of a solid content, of a slurry containing a water-dispersed silica and a carbon black for rubber reinforcement; and  
coagulating the resultant mixture with a coagulator.
2. A process for producing a rubber composition as claimed in claim 1, wherein the carbon black for rubber reinforcement before deposition or adhesion of silica is a GPF to SAF grade produced by an oil furnace method.
3. A process for producing a rubber composition as claimed in claim 1, wherein 5 to 150 parts by weight of at least one oil selected from the group consisting of aromatic process oils and high viscosity oils is further incorporated into the mixture.
4. A process for producing a rubber composition as claimed in claim 1, wherein the content of silica is 0.1 to 25% by weight based upon the weight of the modified carbon black.
5. A process for producing a rubber composition comprising:  
mixing (a) 100 parts by weight, in terms of a solid content, of a latex of a diene rubber component and (b') 10 to 250 parts by weight of a modified carbon black produced wherein in the step of granulating a carbon black when producing the modified carbon black for rubber reinforcement, granulating the carbon black in a granulator after or while adding water-dispersed silica to the carbon black; and then,  
coagulating the resultant mixture with a coagulant.
6. A process for producing a rubber composition as claimed in claim 5, wherein the water-dispersed silica used for the production of the modified

carbon black contains silica particles having a diameter of 1 to 100 nm and a sodium ion content of not more than 1.0% by weight, in terms of  $\text{Na}_2\text{O}$ .

7. A process for producing a rubber composition as claimed in claim 5, wherein 5 to 150 parts by weight of at least one oil selected from the group consisting of aromatic process oils and high viscosity oils are further incorporated into the mixture before the coagulation.

8. A process for producing a rubber composition as claimed in claim 5, wherein the content of silica is 0.1 to 25% by weight, in terms of  $\text{SiO}_2$ , based upon the weight of the modified carbon black.